

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) Method for transferring data from a server to a client using a HTTP connection, said method comprising the steps of:

- 1) sending only one HTTP request by a client to a server for a certain information entity in the server, where

the one HTTP request is sent using HTTP data transfer protocol, the one HTTP request establishes a HTTP connection and the one HTTP request specifies the certain information entity in the server,

after sending the one HTTP request to the server, the client does not send any further request to the server that specifies said certain information entity,

said certain information entity being at least partly updated continuously after sending said one HTTP request,

- 2) sending, using said HTTP connection, at a first time instant from the server to said client a first response portion comprising a first information fragment relating to said information entity according to said HTTP data transfer protocol,

said first response portion further comprising all header information of the whole response encompassing said first

response portion and subsequent second response portions, and a body of a web page showing said certain information entity, and

said client after receipt of said first response portion being arranged to accept further at least one subsequent second response portion, ~~and~~

- 3) sending, using said HTTP connection, at sequential second time instants from the server to said client a plurality of second response portions in response to said one HTTP request, each of said second portions comprising only an information fragment of an updated part of said information entity and a script for processing said information fragment of the updated part of said information entity, each second portion free of all HTTP header information, wherein

- the time period between the first time instant and the earliest second time instant is at maximum a certain first predetermined time period,

- a time period between two sequential second time instants is at maximum a certain second predetermined time period, and

the HTTP data transfer protocol is situated in the application layer on the top of the OSI model, and

- 4) sending, using said HTTP connection, at sequential third time instants from the server to said client a plurality of third response portions, said third portions containing no information fragments specific to said information entity,

wherein at least one of said third portions contains only computer language instructions without the information fragment.

2-4. (canceled)

5. (currently amended) A method according to Claim 3, wherein at least one of said third portions contains only one of i) carriage return characters, ii) linefeed characters, and iii) both carriage return and ~~and/or~~ linefeed characters.

6. (original) A method according to Claim 3, wherein

- the time period between the first time instant and the earliest second time instant is at maximum a certain first predetermined time period, and
- a time period between two sequential time instants of the second and third time instants is at maximum a certain second predetermined time period.

7. (previously presented) A method according to Claim 3, wherein a packet data connection is a Transfer Control Protocol connection, the response, whereof said first portion constitutes a part, is a Hypertext Transfer Protocol Response and said first portion leaves Content-Length field value unknown.

8. (original) A method according to Claim 7, wherein said computer language is a scripting language, scripting tags constitute said computer language instructions and said client is a browser program.

9. (previously presented) A method according to Claim 1, wherein said first portion does not specify the overall size of the subsequent second response portions.

10. (original) A method according to Claim 1, wherein said information fragment in at least one of said second portions is an information fragment relating to a change in said requested information entity, said change being made after said first time instant.

11. (previously presented) A method according to Claim 1, wherein, the response, whereof said first portion constitutes a part, is a Hypertext Transfer Protocol Response.

12. (original) A method according to Claim 11, wherein said first portion leaves Content-Length field value unknown.

13. (previously presented) A method according to Claim 1, wherein said client is a browser program.

14. (previously presented) A method according to claim 1, wherein said script is a scripting language.

15. (original) A method according to Claim 14, wherein said scripting language is JavaScript, VBScript or JScript.

16. (original) A method according to Claim 14, wherein scripting language tags constitute said computer language instructions.

17. (previously presented) A method according to Claim 1, wherein said script is Extensible Markup Language.

18. (previously presented) A method according to Claim 17, wherein Extensible Markup Language elements constitute computer language instructions and said information fragments.

19. (original) A method according to Claim 18, wherein said first portion comprises starting headers of an Extensible Markup Language document.

20-23. (cancelled).

24. (currently amended) A system for transferring data from a server to a client using a HTTP connection, said system comprising:

- means for establishing HTTP connections,
- means for receiving HTTP requests from a client, where only one HTTP request specifying a certain information entity in the server, the HTTP request being according to HTTP protocol and relating to said HTTP connection, after which the client is not required to make another HTTP request to specify said certain information entity in the server, and where said certain information entity is at least partly updated continuously after sending said one HTTP request,
- means for sending as response to the one HTTP request, using a request-specific HTTP connection and at a request-specific first time instant, from the server to the client a first response portion according to said protocol, said first portion comprising a first information fragment relating to said information entity, said first response portion further comprising all HTTP header information of the whole response encompassing said first response portion and subsequent second response portions, and a body of a web page showing a certain information entity, and said client after receipt of said first response portion being arranged to accept further at least one subsequent second response portion, and

- means for sending as a response to the one HTTP request, using said request-specific HTTP connection at sequential request-specific second time instants from the server to said client, a plurality of second response portions, each of said second portions comprising only an information fragment of an updated part of said information entity and a script for processing said information fragment of the updated part of said information entity,

wherein the system is arranged to send the second responses relating to a certain request so that

- the time period between the request-specific first time instant and the earliest request-specific second time instant is at maximum a certain first predetermined time period,

- a time period between two sequential request-specific second time instants is at maximum a certain second predetermined time period, and the HTTP transfer protocol is situated on top of the OSI model in the application layer, and

- means for sending, using said HTTP connection, at sequential third time instants from the server to said client a plurality of third response portions, said third portions containing no information fragments specific to said information entity, wherein at least one of said third portions contains only computer language instructions without the information fragment.

25. (canceled)

26. (previously presented) A system according to Claim 24, further comprising means for sending as a response to the one HTTP request, using said request-specific HTTP connection, at sequential request-specific third time instants from the server to said client a plurality of third response portions, said third portions containing no information fragments specific to said information entity.

27. (previously presented) A system according to Claim 26, wherein it is arranged to send the second and third portions relating to the one HTTP request so that

- the time period between the request-specific first time instant and the earliest request-specific second time instant is at maximum a certain first predetermined time period, and

- a time period between two sequential time instants of the request-specific second and third time instants is at maximum a certain second predetermined time period.

28. (original) A system according to Claim 24, wherein it resides in a server.

29. (currently amended) A computer readable medium tangibly storing a computer program of instructions executable by



a computer to control the computer for enabling a system for transferring data from a server to a client using a HTTP connection, the computer program product comprising:

- computer code means for receiving HTTP requests from the client, where only one HTTP request specifying a certain information entity in the server, the HTTP request being according to an HTTP protocol and relating to said HTTP connection, after which the client is not required to make another HTTP request to specify said certain information entity in the server, and where said certain information entity is at least partly updated continuously after sending said one HTTP request,

- computer code means for sending as a response to the one HTTP request, using a request-specific HTTP connection and at a request-specific first time instant, from the server to the client a first response portion according to said HTTP protocol, said first portion comprising a first information fragment relating to said information entity, said first response portion further comprising all HTTP header information of the whole response encompassing said first response portion and subsequent second response portions, and a body of a web page showing a certain information entity, and said client after receipt of said first response portion being arranged to accept further at least a one subsequent second response portion, ~~and~~

- computer code means for sending as a response to the one HTTP request, using said request-specific HTTP connection at sequential request-specific second time instants from the server to said client, a plurality of second response portions, each of said second portions comprising only an information fragment of updated part of said information entity and script for processing said information fragment of updated part of said information entity,

wherein the computer program product further comprises computer code means to send the second responses relating to a certain request so that

i) the time period between the request-specific first time instant and the earliest request-specific second time instant is at maximum a certain first predetermined time period, and

ii) a time period between two sequential request-specific second time instants is at maximum a certain second predetermined time period, and, the HTTP transfer protocol is situated on top of the OSI model in the application layer, and

- computer code means for sending, using said HTTP connection, at sequential third time instants from the server to said client a plurality of third response portions, said third portions containing no information fragments specific to said information entity, wherein at least one of said third portions

contains only computer language instructions without the information fragment.

30. (cancelled).

31. (currently amended) A method for transferring data from a server to a client, comprising the steps of:

a) a client sending only one data transfer request to a server, the request being in HTTP data transfer protocol and specifying transfer of a certain information entity located in the server that is to be transferred to the client, where

the one request establishes a HTTP connection between the client and the server,

after sending the one request, the client does not send any further request to the server that specifies said information entity,

said information entity being at least partly updated continuously after sending said one request;

b) the server, using said HTTP connection and the HTTP data transfer protocol, sending to the client a whole response containing the information entity and updates to the information entity,

the whole response is a HTTP response comprising i) a first response portion sent from the server to the client at a

first time instant, and ii) plural second response portions sent from the server to the client at subsequent second time instants,

a first time period between an end of the first response portion and a beginning of an initial second response portion being a ~~non-zero~~, positive time amount set at maximum to a certain first predetermined time period,

a second time period between an end of one second response portion and a beginning of a next second response portions being a ~~non-zero~~, positive time amount set at maximum to a certain second predetermined time period,

the first response portion comprising a first information fragment relating to said information entity, a body of a web page showing said information entity, and all HTTP header information of the whole response encompassing said first response portion and the second response portions,

the second response portions each comprising a further information fragment of an updated part of said information entity and a script for processing said further information fragment of the updated part of said information entity, each second portion being free of any HTTP header information; and

c) the client receiving the first response portion, the first response portion arranging the client to accept the second response portions,

the HTTP data transfer protocol being situated in the application layer on the top of the OSI model.

32. (currently amended) The method of claim 31,  
wherein,

said client is a browser program,

sending of each second response portion is triggered by  
the information entity being updated, and

the further information fragment further comprises  
computer language headers, and

comprising the further steps of:

the server determining whether a update time period has  
lapsed since the information entity was last updated; and

upon the server determining that the update time period  
has lapsed, the server, using said HTTP connection and the HTTP  
data transfer protocol, sends a third response portion to the  
client,

the third response portion being part of the whole  
response and being free of any information fragment of said  
information entity and being free of any HTTP header information,

the third response arranging the client to accept  
further second response portions,

wherein, after sending the third response portion to  
the client, the server sends further second response portions to  
the client, and the client accepts the further second response  
portions sent after the third response portion.

33. (previously presented) The method of claim 31,  
wherein,

the first response portion is free of any Content-  
Length parameter.

34. (previously presented) The method of claim 31,  
wherein,

the first response portion comprises a Content-Length  
parameter having a value at least equal to an amount of data  
contained in the plural second response portions.

35. (previously presented) The method of claim 31,  
wherein,

the first response portion comprises a Content-Length  
parameter having a value at least equal to an amount of data  
contained in the first response portion and the plural second  
response portions.

36. (previously presented) The method of claim 31,  
wherein,

the first response portion and the second response  
portions use a TCP connection as a packet data connection.

37. (previously presented) The method of claim 31,  
wherein,

the first response portion and the second response  
portions use a non-TCP connection as a packet data connection.